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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,826	10/07/2005	Satoshi Yasui	Q90673	9465
23373 7590 02/19/2010 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
STEELE, JENNIFER A				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com
PPROCESSING@SUGHRUE.COM
USPTO@SUGHRUE.COM

Office Action Summary

Application No.

10/552,826

Applicant(s)

YASUI ET AL.

Examiner

JENNIFER STEELE

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9-16 and 18-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9-16 and 18-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB06)
Paper No(s)/Mail Date 11/20/2009
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claim 1, 3-7, 9-16, 18-24 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

a. Applicant amended claim 1 to limit the yarns (1) to a polyetherester monofilament formed from polyetherester elastomer comprising soft segments consisting of polyoxyethylene glycol. The specification describes the "polyoxyethylene glycol for forming the soft segments preferably contains oxyethylene glycol units in a content of 70 mol%" or more and continues to state "propylene glycol, tetramethylene glycol or glycerin may be copolymerized in addition to the oxyethylene glycol, within the range wherein the achievement of the object of the present invention is not disturbed" (page 23, lines 22-30).

b. Applicant amended claim 1 to clarify the claim limitation (iii) which describes a test piece is prepared from the fabricwherein A represents the mean length of the detached high water absorbing and self-elongating yarns (1). Applicant does not describe the yarns are detached in the specification. It is presumed that the test piece of fabric is woven or knitted and somehow the yarns

are removed from the test piece (unwoven or unraveled) and then the length of the respective yarns (1) and (2) are measured under the conditions of load stated in this limitation. The claim amendment is not described in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1, 3-7, 9-16, 18-24 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The rejection was previously written as a 35 USC 112 1st paragraph rejection, however the 112 1st paragraph rejection was improper as the claim and specification in the original disclosure describe the same limitation of section (iii). However claim 1 and the specification are unclear and therefore indefinite.

Applicant is describing the woven or knitted fabric by the formula $A/B < 0.9$ which requires that yarn (2) is longer in length than yarn (1). However, the claim states that this formula is satisfied when " a test piece is prepared from the fabric in such a manner that the fabric is stabilized in dimension in the atmosphere having a temperature at 20C and a relative humidity of 65% and then cut into pieces of 30 cm long in the warp or wale direction and 30 cm long in the weft or course direction....the length of the respective yarn being measured under a load of 1.76 mN/dtex when the yarn is non-elastic yarn having an elongation at break of 200% or less or under a load of 0.0088 mN/dtex when the yarn is an elastic yarn having an elongation at break higher than 200%"

It is not clear how the yarn lengths are measured from the test piece of the woven or knitted fabric and therefore the claim limitation is not clear and indefinite for failing to describe the invention.

It appears that the formula $A/B < 0.9$ is a structural limitation and the length is dependent on the test measurements wherein the yarn is measured under a load. However, the limitation of the respective length of the yarns is described in the specification (page 29, lines 1-10) as being determined by the process of producing a composite or paralleled yarn. The yarns (1) and (2) are paralleled yarns subjected to an air filament combining procedure, a twisting procedure or a covering procedure to provide composite yarns. The resultant composite yarn there is a difference in yarn length and yarn (2) is longer than yarn (1). The specification also describes the yarns length differences are achieved by the following process:

[0057] In another embodiment of the woven or knitted fabric of the present invention containing two different types of yarns, the fabric has a woven fabric structure, for example a plain weave structure wherein warp and weft yarns are respectively constituted by paralleled yarns constituted from the yarn (1)1 having a high water-absorbing and self-elongating property and the yarn (2)2 having a low water-absorbing and self-elongating property. If such paralleled yarns are used as warp and weft to form a woven fabric, the yarn (1)1 having a high water-absorbing and self-elongating property is paralleled in a dry state while being mechanically stretched under, a tension in a dry state, with the yarn (2)2 and the resultant paralleled yarn is subjected to the weaving procedure. After completing the weaving procedure, the tension is released and thus the yarn (1)1 mechanically shrinks, while the yarn (2)2 substantially does not shrink. Since the ratio A/B of the mean length A of the yarn (1)1 to the mean length of the yarn (2)2 is controlled to be 0.9 or less in the resultant woven structure, the longer yarn (2)2 is crimped around the shorter yarn (1)1 as shown in FIG. 2A, whereby an apparent thickness of the paralleled yarn increases. As a result, the opening area of the resultant woven fabric is relatively low in a dry state. When the woven fabric absorbs water to a wetted state, the yarn (1)1 absorbs water and elongates itself as shown in FIG. 2B, while the yarn (2)2 is in a tensed state while being accompanied therewith, and whereby the opening area of the wetted fabric becomes higher than the opening area of the dry fabric to facilitate the air-permeability. Methods for weaving and knitting the fabrics shown in FIGS. 1 and 2 by using the paralleled yarns constituted from the yarns (1) and (2) will be further described hereinafter.

Response to Arguments

3. Applicant's amendments and arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. The previous 35 USC 112 1st paragraph rejection has been withdrawn and new 35 USC 112 2nd paragraph rejection presented in this Office Action. Applicant's claim amendments to overcome the previous 35 USC 112 1st paragraph rejection over the limitation "(iii) when a test piece"... "satisfies the requirement $A/B < 0.9$ " resulted in new subject matter 112 1st paragraph rejection as the specification does not describe the yarns (1) and (2) are detached from the test piece and then measured.

This Office Action is Non-Final to clarify the rejection over claim 1 is a 35 USC 112 2nd paragraph rejection as the claims and the specification are indefinite with respect to the claim limitation. However, support for the structural limitation that yarn (2) is longer than yarn (1) found in the specification as noted in the previous and present Office Action. Applicant teaches a paralleled or composite yarn is formed from yarns (1) and (2) where the yarn (1) having a high water-absorbing and self elongating property is paralleled in a dry state while being mechanically stretched under a tension in a dry state with yarn (2). After weaving is completed the tension is released (specification page 18 and 29). The structural limitation that yarn (1) is shorter than yarn (2) in the woven or knitted fabric is clear from the specification, however it is not clear in light of the limitation (iii) in the claim and limitation (iii) as taught in the specification.

4. Applicant amended claim 1 to limit the soft segments of the polymer fiber to "consisting of" polyoxyethylene glycol. Examiner has rejected the claim as new subject

matter, however the claim as written overcomes the prior rejection over DuFour as DuFour does not teach the polyetherester monofilament formed from the polymer components and composition as claimed. As a result, the 35 USC 103 rejection is withdrawn and Applicant's arguments with respect to the rejection are moot.

5. Claim 1 and dependent claims would be in condition for allowance if the 35 USC 112 1st and 2nd paragraph rejections are overcome and amended to include the structural limitations of claims 4, 5 or 6. Claim 1, as written, lacks any structural limitation of a woven or knitted fabric. While claims 4-7 provide the structure of the woven or knitted fabric as well as the feature of the paralleled composite yarn formed of yarn (1) and (2), these claims are dependent claims and would be required to be incorporated into the independent claim 1. In addition, Applicant must clarify the claim limitation (iii) related to a test piece and the relative length of the yarns.

6. Applicant argues the written description rejection and states that it is clear that the formula is a structural limitation in which yarn (2) is longer than yarn (1). And that the yarns usually have a waved form under no load so the length of the yarns are measured under a predetermined load under which the yarn is straightened but not stretched. While this may be a structural limitation, the claim provides no limitations that state the structure of a fabric or a composite yarn. Applicant is claiming a woven or knitted fabric containing yarns (1) and (2). While the polymer composition of the yarns and the limitation that yarn (1) is shorter than yarn (2) provide some basis for claiming a yarn, the claim does not provide any structure of a woven or knitted fabric. As understood from the specification, yarn (1) composition, when combined with yarn (2) in

a composite and paralleled structure such that yarn (1) is under tension and therefore is shorter in length than yarn (2) can be woven or knitted into a fabric with produces the claimed properties of an increase in air permeability, openness and change in roughness.

7. Applicants states that the Japanese Patent No. 039,92,687 has been granted and the fabric is now produced and sold under the trademark "SPHERE REACT" from Nike Inc. and the fabric won a prize for new technology was awarded from The Society of Fiber Science and Technology, Japan in 2006. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Examiner noted in the previous and present Office Action that claim 1 is indefinite for failing to adequately describe the structure of the fabric and the structure of the composite yarn which produces the fabric.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER STEELE whose telephone number is (571)272-7115. The examiner can normally be reached on Office Hours Mon-Fri 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S./
Examiner, Art Unit 1794

2/3/2010

/Rena L. Dye/
Supervisory Patent Examiner, Art Unit 1794